Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Digital Audio Broadcasting Systems	)	MM Docket No. 99-325
And Their Impact On the Terrestrial Radio	)	
Broadcast Service	)	

To: The Commission

COMMENTS OF NATIONAL PUBLIC RADIO, INC.

National Public Radio, Inc. ("NPR") hereby submits its Comments in response to the Commission's Public Notice regarding the iBiquity Digital Corporation ("iBiquity") AM In-Band On-Channel ("IBOC") Digital Audio Broadcasting ("DAB") system.[1] In its Public Notice, the Commission seeks comment on iBiquity's AM IBOC test results, submitted April 15, 2002, and on the National Radio Systems Committee ("NRSC") DAB Subcommittee Evaluation of the iBiquity Digital Corporation IBOC System, Part 2 – AM IBOC, submitted April 16, 2002 (the "NRSC Report").

I. Introduction

NPR is a non-profit membership corporation which produces and distributes noncommercial educational programming through more than 600 public radio stations nationwide. In addition to broadcasting award-winning NPR programming, including *All Things Considered®, Morning Edition®, Talk of the Nation®, and Performance Today®,* NPR's Member stations originate significant amounts of news, informational and cultural

[1] Public Notice, Comment Sought on National Radio Systems Committee DAB Subcommittee's "Evaluation of the iBiquity Digital Corporation IBOC System", MM Docket No. 99-325, rel. April 19, 2002 [hereinafter Public Notice].

programming. NPR also operates the Public Radio Satellite Interconnection System and provides representation and other services to its Member stations.

Approximately 37 NPR Member stations are located on the AM band. In addition, another nine AM stations broadcast NPR programming, but are not NPR Members. Listeners from New York City to Iowa to rural Alaska tune to AM stations to receive NPR programming.[2] Accordingly, NPR has a significant interest in the development of a digital audio broadcasting system for AM stations that will improve service to NPR's AM listeners.

NPR has been a long-standing advocate of the development of terrestrially based digital radio. Since 1987, NPR has urged the FCC to consider the spectrum needs of advanced radio systems.[3] When the Commission initiated this proceeding, NPR applauded the Commission's support for digital radio broadcasting and generally

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[2] For example, WNYC(AM), New York, NY, provides NPR programming to residents of New York City. Three AM stations in Iowa, WOI(AM), Ames, IA, WSUI(AM), Iowa City, IA, and KRNI(AM), Mason City, IA, broadcast NPR programming to listeners. In addition, eight AM stations in Alaska provide NPR programming: KBBI(AM), Homer, AK; KBRW(AM), Barrow, AK; KCHU(AM), Valdez, AK; KDLG(AM), Dillingham, AK; KIAL(AM), Unalaska, AK; KIYU(AM), Gelena, AK; KSKO(AM), McGrath, AK; and KYUK(AM), Bethel, AK. Because of government use of parts of the FM band in Alaska and the ability of AM to propagate over long distances, the AM band is particularly suited to the distribution of NPR programming to Alaska's rural residents. See, e.g., 47 C.F.R. § 73.503(b); Amendment of Parts of the Commission's Rules Governing Frequency Allocations and Radio Treaty Matters, 90 F.C.C.2d 507 (1982).

[3] See, e.g., Comments of National Public Radio, Inc., Advanced Television Systems and Their Impact on the Existing Television Broadcast Service, MM Docket No. 87-268, filed Nov. 18, 1987; Comments of National Public Radio, Inc., Amendment of the Commission's Rules with Regard to the Establishment and Regulation of New Digital Audio Radio Services, GEN Docket No. 90-357, filed Nov. 13, 1990; Further Reply Comments of National Public Radio, Inc., In the Matter of Creation of a Low Power Radio Service, MM Docket No. 99-25, filed Nov. 15, 1999.

endorsed the Commission's stated policy goals and proposed evaluative criteria.[4] Following submission of the test results for the iBiquity FM IBOC DAB system, NPR supported adoption of the iBiquity FM IBOC system, subject to several important considerations, including the satisfactory resolution of interference concerns regarding subsidiary communication services and Commission commitment to affording FM broadcasters the opportunity to offer secondary program services.[5]

NPR believes that the adoption of the iBiquity AM hybrid-mode IBOC DAB system for daytime service would be an important step in the transition to digital radio broadcasting. In adopting the iBiquity AM IBOC system for daytime service, however, the Commission also should encourage the expeditious development and testing of an acceptable AM IBOC DAB system for nighttime service.

II. NPR Supports The Prompt Adoption Of The iBiquity AM IBOC DAB System for Daytime Service

NPR supports the iBiquity AM hybrid-mode IBOC DAB system for daytime service because it promises to improve AM signal quality significantly. The AM IBOC system would serve a number of the selection criteria set out by the Commission in the Notice of Proposed Rulemaking in this proceeding, including enhancing audio fidelity and improving robustness of the signal to resist interference and other signal impairments

[4] Comments of National Public Radio, Inc., In the Matter of Digital Audio Broadcasting Systems And Their Impact On the Terrestrial Radio Broadcast Service, MM Docket No. 99-325, filed Jan. 24, 2000.

[5] Comments of National Public Radio, Inc., In the Matter of Digital Audio Broadcasting Systems And Their Impact On the Terrestrial Radio Broadcast Service, MM Docket No. 99-325, filed February 19, 2002, at 3-4 [hereinafter "NPR FM IBOC Comments"].

under daytime propagation conditions, and remaining compatible with continued operation of existing radio broadcast stations.[6]

The improvement in audio fidelity and robustness is especially important for the AM band. As the DAB Subcommittee of the NRSC notes, the AM band has been plagued with high levels of natural and man-made interference.[7] Many AM listeners must tune to AM stations with less than telephone-quality audio bandwidth on very narrow-band receivers.[8] The ability of AM stations to provide near FM-quality stereo reception thus could substantially benefit many public AM radio stations and their listeners.

Moreover, virtually every other means of electronic mass media is transitioning to or otherwise deploying digital technology. Public AM radio stations must have the option of transitioning to digital technology as well in order to further their public interest mission,[9] or risk falling further behind other mass media in signal quality.[10]

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[6] In the Matter of Digital Audio Broadcasting Systems and Their Impact on the Terrestrial Broadcast Service, Notice of Proposed Rulemaking, MM Docket No. 99-325, 15 FCC Rcd. 1722, at ¶¶ 20-23 (1999) [hereinafter "DAB NPRM"]; Public Notice at 1.

[7] See NRSC Report at 8.

[8] Id.

[9] 47 U.S.C. § 396(a).

[10] Although the AM IBOC DAB system does not offer stations the opportunity to provide secondary program services, like the iBiquity FM IBOC DAB system, the enhancement of AM audio quality is significant enough to warrant adoption of the AM IBOC system. See NPR FM IBOC Comments, at 8-9 n.14.

In adopting the iBiquity AM IBOC system, however, the Commission should consider the need to limit the cost of implementing the system.[11] The iBiquity IBOC system is based on proprietary technology, for which iBiquity intends to charge licensing fees. The costs of licensing this technology could be unreasonably burdensome, particularly for public broadcasters who have limited resources.[12] Therefore, the technology should be licensed for use by noncommercial educational radio stations either without charge or under terms and conditions that are reasonable and predictable under the circumstances.[13] Public broadcasters should be able to obtain the technology, plus maintenance, updates and upgrades of the technology, without significant or unexpected costs.

III. The Commission Should Encourage The Expeditious Development And Testing Of An AM IBOC DAB System For Nighttime Service

The NRSC did not obtain or request any test results on nighttime, skywave propagation conditions for the AM IBOC DAB system, although the NRSC expects that the first adjacent interference created by the present AM IBOC DAB system would pose potential problems for listeners at night.[14] The NRSC Report suggests that the

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[11] See DAB NPRM at ¶ 34; Public Notice at 1.

[12] See NPR FM IBOC Comments, at 5 n.6.

[13] See Reply Comments of NPR, In the Matter of Digital Audio Broadcasting Systems and Their Impact On the Terrestrial Radio Broadcast Service, MM Docket No. 99-325, filed March 21, 2002, at 9-10; Comments of the Consumer Electronics Association, In the Matter of Digital Audio Broadcasting Systems and Their Impact On the Terrestrial Radio Broadcast Service, MM Docket No. 99-325, filed February 19, 2002, at 3-4 (recommending no charge or limitation on licensing fees for FM IBOC system equipment).

[14] See NRSC Report at 8.

Commission revisit nighttime service at a future date or make it available once the "all digital" mode is authorized.[15] NPR urges the Commission not to wait to examine nighttime AM IBOC DAB service until the "all digital" service is authorized, but to encourage swift development and testing of an acceptable AM IBOC DAB system under nighttime propagation conditions. In addition, the FCC's Office of Engineering and Technology should allocate resources to examine nighttime AM IBOC DAB service, including a modified hybrid approach with narrower sidebands and a narrowband digital-only service for nighttime operation, that could achieve the benefits of IBOC without unacceptable interference. The benefits of digital broadcasting should be available to public AM radio stations around the clock as soon as possible so that these stations can best serve their public interest mission.

[15] Id. at 9.

IV. Conclusion

For the foregoing reasons, NPR strongly supports the Commission's continued efforts to facilitate the transition to digital radio broadcasting, and advocates the prompt adoption of the iBiquity AM IBOC DAB system for daytime service and the expeditious development and testing of an acceptable AM IBOC DAB system for nighttime service.

Respectfully submitted,

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June 18, 2002